THE INNOVATION AND ECONOMIC GROWTH: AN EXEMPLARY GOVERNMENT-BACKED POLICY IN ESTONIA

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A new race for global economic advantage is under way in recent times. It is a fierce race that only the most innovative nations will win. The first paper in series "The innovation and economic growth" has clearly denoted the leader role of Estonia in raising the investments in R&D sector and boosting their innovative export-oriented production between Baltic States. The present paper is a third in series and presents a regressive analysis of whole chain of innovation driving factors, starting from the investments in R&D and leading up to the boost of innovative export-oriented production in Estonia. The dynamic structures and time-series of outstanding driving factors are presented to disclose the Estonian leadership in Baltic States.

The purpose of this research is to analyze econometrically the relation between different drivers of innovative high-value-added production which can both steer national decisions about economic policies in the right direction and improve the governments' ability in facilitating the process that leads to long run increases in the wealth of nations, as driven by accumulation and effective employment of knowledge and technologies. The experience of Baltic States leader – Estonia – would be as follows.

Design/methodology/approach. The both high-tech production and innovation driving factors in Estonia based on panel data from 2003-2012 were withdrawn in this paper from the Estonian national statistic surveys. The selected descriptive statistics of the high-tech production of Estonian firms has been withdrawn from these surveys too. Then the time-series of basic determinants of high-tech production, their dispersion, including inputs like the investments in high education, R&D, and labour and sector specific differences in technology etc. were evaluated, and finally, the endeavours to relate the remaining differences to the innovative activities of firms were undertaken.

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Findings. The main conclusions and suggestions are presented. The first conclusion is that a high-tech R&D based innovation matters at the later stages of economic development, when there are barely both factors of competitiveness and learning that allow for completing the "catch-up" processes. The next is that the present regressive analysis clearly shows that the Estonian government-backed R&D policies retaining the growing levels of main innovation driving factors are really exemplary and warrant a high future grow of Hi-tech innovative production. Actually the coming level of Estonian innovative export-oriented production was econometrically estimated to amazingly grow at 15.2% in 2014 and ever after.

The practical implications of these findings for companies are that in order to improve performance they must avoid narrowly focusing on R&D, but must invest more in capabilities to commercialize technologies resulting from the R&D. An Estonia was a small peripheral country of backward-looking Soviet Union without any kind of natural resources in the past. It is positioned during past 5-6 years in the top of moderates European Union countries now and straining ahead.

An impressive path to the global leadership is obvious. What lessons can be drawn from Estonian experience and successfully adapted for Lithuanian economic boost in near future? It is under consideration too.

Originality/value. The paper examines a large range of terms of innovative activities from the gross domestic expenditure on R&D up to the final export of high-tech innovative production in Estonia, including the econometric model. An absence of detailed analysis of different drivers of innovative high-value-added production at open economy of small country can be noticed in analysis of prior coverage of the present research. It refers clearly to the innovation of present research effort.

The research limitations/implications. The modelling of basic high-tech production determinants, their dispersion, including inputs like the investments in high education, R&D, and labour and sector specific differences in technology slightly restrains the scope of present research. The suggestion to extend the analysis on the grounds of Total-factor-production, product market competition and concentration of the sector, and knowledge diffusion in productivity improvements is on the agenda of forthcoming research.

Keywords: race for global advantage, innovations, high-tech export driving factors chain, investments in research and development, regressive analysis and prognosis.

Research type: case study.